

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1-34. (cancelled)

35. (new) A viscoelastic foam made from a Part A composition and a Part B composition, said Part A composition comprising 20-50 weight percent isocyanate (NCO), said Part B composition comprising at least 10 parts by weight of one or a mixture of propylene oxide-extended amine-based polyether polyols having substantially no ethylene oxide extension units, at least 10 parts by weight of an additional polyol selected from the group consisting of filled polyether polyols and unfilled polyether polyols, and 0.01-4 parts by weight catalyst, said Part A and Part B compositions being combined to provide said viscoelastic foam.

36. (new) A viscoelastic foam according to claim 35, said additional polyol being a tri-functional polyether polyol.

37. (new) A viscoelastic foam according to claim 35, having an index of 60-115.

38. (new) A viscoelastic foam according to claim 35, having an index of 80-115.

39. (new) A viscoelastic foam according to claim 35, said Part B composition further comprising about 1-3 parts by weight water.

40. (new) A viscoelastic foam according to claim 35, said Part B composition further comprising about 1-6 parts by weight black paste.

41. (new) A viscoelastic foam according to claim 35, said isocyanate in said Part A composition being present in the form of 4,4'-MDI.

42. (new) A viscoelastic foam according to claim 41, said 4,4'-MDI being present in said Part A composition in an amount sufficient to provide an isocyanate (NCO) concentration of about 33.6 percent by weight.
43. (new) A viscoelastic foam according to claim 35, said isocyanate in said Part A composition being present in the form of an allophanate-modified MDI prepolymer, said part A composition having an isocyanate (NCO) concentration of about 20-30 percent by weight.
44. (new) A viscoelastic foam according to claim 35, said one or a mixture of propylene oxide-extended amine-based polyether polyols comprising monoethanolamine-based polyol in an amount of 0-10 parts by weight, triethanolamine-based polyol in an amount of 10-70 parts by weight, and ethylenediamine based polyol in an amount of 0-36 parts by weight.
45. (new) A viscoelastic foam according to claim 35, said catalyst comprising amine catalyst in an amount of 0-2.5 parts by weight, delayed action catalyst in an amount of 0-1 parts by weight, and trimerization catalyst in an amount of 0-1 parts by weight.
46. (new) A viscoelastic foam according to claim 45, said amine catalyst being tertiary amine catalyst, said delayed action catalyst being a combination delayed action catalyst, said trimerization catalyst being a quaternary ammonium salt trimer catalyst.
47. (new) A viscoelastic foam according to claim 35, said additional polyol being a glycerin-based polyoxypropylene-polyoxyethylene-extended polyether polyol.
48. (new) A viscoelastic foam according to claim 35, said additional polyol being a polyoxypropylene-polyoxyethylene-extended polyether polyol.
49. (new) A viscoelastic foam according to claim 35, said additional polyol being a non-amine-based polyether polyol.
50. (new) A viscoelastic foam according to claim 35, said Part B composition having 100 parts by weight total polyols.
51. (new) A viscoelastic foam according to claim 35, said one or a mixture of propylene oxide-extended amine-based polyether polyols comprising triethanolamine-

based polyol in an amount of 60-70 parts by weight, said additional polyol being present in an amount of 30-40 parts by weight.

52. (new) A viscoelastic foam according to claim 51, said one or a mixture of propylene oxide-extended amine-based polyether polyols further comprising monoethanolamine-based polyol in an amount of 8-10 parts by weight.

53. (new) A viscoelastic foam according to claim 51, said additional polyol being a filled polyether polyol.

54. (new) A method of making a viscoelastic foam comprising the steps of:
a) providing a Part A composition comprising 20-50 weight percent isocyanate;
b) providing a Part B composition comprising at least 10 parts by weight of one or a mixture of propylene oxide-extended amine-based polyether polyols having substantially no ethylene oxide extension units, at least 10 parts by weight of an additional polyol selected from the group consisting of filled polyether polyols and unfilled polyether polyols, and 0.01-4 parts by weight catalyst; and
c) combining said Part A and Part B compositions to provide said viscoelastic foam.

55. (new) A method according to claim 54, said additional polyol being a tri-functional polyether polyol.

56. (new) A method according to claim 54, said viscoelastic foam having an index of 60-115.

57. (new) A method according to claim 54, said Part B composition further comprising about 1-3 parts by weight water.

58. (new) A method according to claim 54, said Part B composition further comprising about 1-6 parts by weight black paste.

59. (new) A method according to claim 54, said isocyanate in said Part A composition being present in the form of 4,4'-MDI.

60. (new) A method according to claim 59, said 4,4'-MDI being present in said Part A composition an amount sufficient to provide an isocyanate (NCO) concentration of about 33.6 percent by weight in said Part A composition.

61. (new) A method according to claim 54, said isocyanate in said Part A composition being present in the form of an allophanate-modified MDI prepolymer.

62. (new) A method according to claim 54, said one or a mixture of propylene oxide-extended amine-based polyether polyols comprising monoethanolamine based polyol in an amount of 0-10 parts by weight, triethanolamine based polyol in an amount of 10-70 parts by weight; and ethylenediamine based polyol in an amount of 0-36 parts by weight.

63. (new) A viscoelastic foam according to claim 35, said one or a mixture of propylene oxide-extended amine-based polyether polyols comprising triethanolamine-based polyol in an amount of 60-70 parts by weight, said additional polyol being present in an amount of 30-40 parts by weight.

64. (new) A viscoelastic foam according to claim 63, said one or a mixture of propylene oxide-extended amine-based polyether polyols further comprising monoethanolamine-based polyol in an amount of 8-10 parts by weight.

65. (new) A method according to claim 63, said additional polyol being a polyoxypropylene-polyoxyethylene-extended filled polyether polyol.

66. (new) A foam, said foam being a semi-rigid viscoelastic foam, wherein on impact with a flat circular impactor having a 4-inch diameter at an impact speed of about 2 meters per second, a sample of said foam measuring 5.5" x 5.5" x 1" thick exhibits about 100 g's of breakthrough acceleration, and wherein said foam sample is substantially 100% recoverable and exhibits negligible loss of strength following said 2 m/s impact.

67. (new) A foam according to claim 66, wherein on impact with said flat circular impactor at an impact speed of about 6 meters per second, said foam sample exhibits about 150 g's of breakthrough acceleration.